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Exploring 1918 Pandemic and Today

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The Influenza Pandemic and Today

The Influenza Pandemic of 1918 destroyed many families and opened the eyes of the entire world to new horrors, but it also gave medical professionals a considerable amount of practical experience. Health experts worked very hard to gather as much information as possible, while still staying vigilant to conquer such a threat with the little knowledge they had at the time. The loss of so many lives was a great devastation to the world, but because of those experiences, medical professionals were able to use that knowledge in hopes of discovering methods to properly manage the spread of similar viruses. Media was not effectively used due to the government's attempt at maintaining good morale during the brutality of World War I. Today, media has developed an interesting dichotomy; on one hand, it can be used to more quickly and effectively spread correct information, while also potentially misleading the general populace who are looking for guidance. Non-Governmental Organizations (NGOs), as well as federal programs, helped establish criteria and strategic plans to combat future pandemics, including the 2009 H1N1 "Swine flu." The field of epidemiology started to grow after this 1918 pandemic due to the influx of newfound information. Since 1918, doctors and scientists have greatly improved upon proper procedures to control disease through several advancements. Medical technology and knowledge have helped

progress the field of epidemiology to the state that it is today. Digital and social media also greatly affect the ways information is disseminated to the masses to inform and prevent spread of disease, however, it can also be used to spread misinformation. Finally, non-governmental and governmental preparedness plans were also developed as preemptive measures, so the potential that viruses such as H1N1 become pandemics can be minimized.

The improvement upon the field of epidemiology relies heavily on the growth of medical technology and knowledge as experiences influence specific types of preventative measures. The 1918 pandemic was a valuable teaching moment for medical and other healthcare professionals. Specific training, programs, and emergency planning along with immunizations and antiviral drugs are several measures established since that point. In his "Introduction to Pandemic Influenza through History," Youri Ghendon explains that there were some attempts in America to prevent the spread of the virus including Chicago police arresting those who sneezed in public. He further explains that "the main problem is that the real causative virus of pandemic influenza cannot be completely determined, until at least the first phase of the pandemic is underway" (452). Learning from what works within societies and specifically how the virus works helps epidemiologists to combat the subsequent pandemics. Huang Yanzhong points out the important factor that the United States was in the midst of World War I and morale needed to remain high. The thought of isolation and quarantine was not an option because "local newspapers said little about mortalities caused by the pandemic and full information about the influenza virus was not

broadcast around the country. Instead of encouraging social distancing measures, the bond drive would entail 'thousands of meetings and rallies, tens of thousands of door-to-door solicitations, and just about everything recommended for the spread of an air-borne disease.'" The known shred of information on how disease spread can be prevented was overshadowed by the political and social climate. There was more confusion and rumors being spread around rather than factual information. Even the title, Spanish Flu, made the world assume the influenza originated in Spain just because they were the first to recognize a problem. Yanzhong mirrors what the CDC reveals on the lack of intensive care as well as antibiotics, which would have served as a life changer because much of the deaths were from "secondary bacterial infections—not viral pneumonia—that could now be treated by antibiotics." It is also important to note that he reveals that a leading health expert describes this Spanish Flu as 'the benchmark against which we worry about future influenza pandemics.' This influenza pandemic served as an opportunity to improve upon future, inevitable pandemics, including the 2009 H1N1.

In 1918 and continuing on to today, recognizing that socio-economic disparities are a focal point to the spread of disease is how the control of that spread can begin to be managed. Lack of knowledge, high illiteracy rates, and less accessibility to healthcare resources put those in poverty-stricken areas at a higher risk of contracting and advancing the spread of a virus. Gerardo Chowell's 'Lessons from 1918 Chicago' goes into great detail on what factors of these discrepancies demonstrated how "limited literacy and educational achievement hamper access to preventive services," which lead

to “poor nutritional status, weak immune condition, increased risk of secondary infection, or limited access to care on the risk of severe influenza outcomes.” Accessibility seems to be the most important element when it comes to preventing any type of disaster.

The demand for medical resources overwhelms the world in times of crisis and the improvement of technology creates a whirlwind of dangerous factors that further put pressure on health and other essential professionals. Yanzhong explains that globalization and international travel speeds up the process of disease spread. He explains how viruses could make their way through the world in six to nine months even with the use of ships, so today the spread is far greater when the average citizen is able to use a plane to travel the world in hours. H1N1 was first reported in late April and in less than a month later, the World Health Organization (WHO) declared it a pandemic. Compared to 1918, the serious action taken by the WHO against this 2009 virus was astounding because, by the time a full-blown pandemic was declared, there were only 2500 cases and the damage to the host by the virus was not severe. This fast action and ability to detect pandemics within weeks is what can save millions of lives and prevent 1918 from happening again.

Jemilah Mahmood neatly describes the “four primary ways to reduce effects of an influenza pandemic” and two of which are “quality medical care and public health measures to decrease the spread or extent of the disease.” To determine and provide quality medical care is a feat in itself, which needs many more years of work. At this time, the United States has amazing technology and knowledge on how to properly care

for its citizens, but, again, the accessibility to that care is hard to come by depending on one's socio-economic status. Public health measures take many forms including preparedness and preventative planning as well as working and learning in the moment to stay vigilant. Terri Rebmann's discussion in "Pandemic Preparedness" outlines areas that still need to be improved upon as there is a lack of standards and guidelines showing this very important preparedness. She provides a detailed list of infection prevention issues for hospital disaster plans featuring the need for specific health policies and procedures, organized protocol to identify disease, and constant protection for employee exposure. Looking at the United States, Canada, and China, Rebmann found plenty of inconsistencies of pandemic preparedness plans between the countries. She noted that all three countries failed to have plans of proper communication and reporting procedures as well as a lack of stockpiled personal protective equipment (PPE). William Long expressed that the 2009 H1N1 influenza outbreak "provided an early warning of the danger posed by a novel influenza virus against which most people have little or no protection." It is important to recognize the failures within the system because those deviations between planning could mean lives lost. H1N1 served as a test for the world and a chance to prepare and to get organized before a larger disaster.

According to the CDC, drastic improvements have been made since then and that is part of why the H1N1 pandemic was less severe. Vaccinations, antibiotics, and health professional training and emergency programs feature key ways to combat the disease. The CDC recognizes that advancements have been made through "plans, resources, products and improvements," but the world is still not prepared for a devastatingly large

pandemic again. At the world's disposal is an abundance of methods to do so and human error and/or bias is often what hinders progress. For example, in Europe, vaccine rates were greatly lowered as citizens did not follow proper vaccination recommendations even as the second wave, emulating the 1918 pandemic, hit (Reintjes).

Deciphering the accuracy of media outlets can also influence how the spread of disease is managed. The way news media reacts to and reports on casualties and infection rates affects perceptions of a virus and the medical professionals often have to combat a hive-mind mentality from the public and attempt to correct misinformation being spread. It is common for society to consume media and run with basic ideas without consulting professionals even with the overabundance technology available today. Often detrimental, this vast bed of knowledge overwhelms the majority of people and creates a vacuum of fear-mongering versus reassurance and the media feeds into that. Ralf Reintjes' "Pandemic Public Health Paradox" explains that "media logic does not equate epidemiological logic" because the first few casualties tend to be of news source value and the coverage often goes down if the cases are from other countries. Reintjes discusses how the news can shape public opinion and perception well before medical professionals do. The main factors that influence citizens are the quantity, content, and tone of the reports. Discussion of severity of H1N1 and who is vulnerable tends to be the primary theme that was discussed and only after that were preventative measures explored. Interestingly, after the first wave, the media surged and during the second wave, where most deaths occured, there was little media attention in the United

Kingdom. Even one news source in Germany was questioning the safety and availability of vaccines being administered to the military versus the general public. Medical professionals have to attempt to stay one step ahead of the media to make sure accurate and consistent coverage is distributed to the public. With the availability of social media, it is very easy to find misinformation as well as genuine reports. Reintjes perfectly sums up the sentiment that they must follow when he states, "public health officials need to be aware of the different media logic and the short periods of media spotlights and use them appropriately in order to provide the right information to their audience at the right time." Media can make individuals fearful and more prone to seeking guidance from inadequate sources and, to help prevent that, governmental and non-governmental agencies are able to provide a place and system to give the public a better understanding of what they need to do to prevent spreading disease.

The potential to minimize pandemics increases with the help of preemptive measures from various non-governmental and governmental preparedness plans. Non-governmental organizations (NGOs) are on the side of the public and that positive authority is what can help the public from continuing to reach out to sources that will better the outcome of pandemics. Chowell explains that "in 1918 the arsenal available to treat primary influenza infection…was rudimentary and limited to basic supportive care." There were few population-level interventions, including cancelling school and large social gatherings, that were available to control the spread of disease. The ability to close certain events and places varied from place to place as poverty often controlled, and still does control, what preventative measures can be taken. GOs and NGOs are

used in an attempt to help those who need it when citizens cannot afford to take time out of work to watch children who are home from school or daycare. These organizations help to equalize experiences and to provide treatment and preventive measures to all. “In terms of national, state and local pandemic planning,” Jordan et al. writes on the CDC website, “no coordinated pandemic plans existed in 1918.” The system is set up to fail without proper planning and prevention.

In 2009, the importance was focusing on limiting the transmission of the virus through isolation and contact tracing of cases. Five European countries were “recommended antiviral therapy within 48 hours after onset of symptoms and requested persons with symptoms to be isolated at home or in hospital (depending on their clinical condition) for at least seven days” (Reintjes). Limiting who would be tested and who should be isolated to only specific risk-groups made a chance for healthcare facilities to stay on top of the virus and prevent overcrowding and lack of PPE.

The U.S. Government Accountability Office uses four key components, “increasing hospital capacity; identifying alternative care sites; registering medical volunteers; and planning for an alteration in established standards of care” to prepare for such a medical surge (Yanzhong). Having this type of control over a situation before it even begins is essential in maintaining control as a pandemic unfolds. Because of the nature of such infectious viruses, organizations can only prepare so much and there will always be a lot of improvisation, but preparation will minimize potential and often inevitable complications. Where the government cannot reach, NGOs are found. They are “especially effective in areas of community-based surveillance, education and

mitigation of the health—and economic—impacts of a pandemic" (Mahmood). One of which, the Humanitarian Pandemic Preparedness (H2P) Initiative, focuses on developing "preparedness plans and mechanisms for community resilience in the areas of public health, food security and livelihoods." Some aspects of this initiative were based on criteria such as the "projected mortality based on a 1918-like influenza pandemic" as well as certain country's government interests. NGOs are also integral in forming national pandemic preparedness plans alongside the WHO or UN agencies as well as facilitating those effective responses. Mahmood explains that NGOs need to be supported more by governments, donors, and the international community as a whole to better prepare for pandemics at a smaller community level. These types of organizations recognize that the individual and local level are often what gets overlooked and that is important because it spreads the disease the fastest.

Pandemics will forever be a terrific natural disaster that humankind must face, but with preparation, they can be overcome and damages as well as many lives lost can be prevented. For the foreseeable future, viruses will continue to take over, especially with the growing technology, but as knowledge grows with it, the world can have a better chance at fighting them. Planning at the local, state, national, and international levels will better prepare everyone. Resources need to be saved, but medical professionals must also have the ability to use PPE and other equipment to protect themselves and others. Looking at 1918 and the growth of technology and prevention and how it was used to suppress H1N1 in 2009 is an overall positive change, but many

gaps within the foundation of preparedness need to be strengthened. Those faults are being seen in the world today, in 2020, as COVID-19 slips through those gaps.

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